OPERATIONAL RESEARCH ON KEY STI's AND HIV IN TURKEY

TECHNICAL ASSISTANCE DELTUR/2006/116-986

Summary Report

April 2007

Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
AMATEM	Centre for the Treatment and Training of Alcohol and Substance Abusers
ANC	Antenatal Care/Clinic
ART	Anti retroviral treatment
CDSS	Communicable disease surveillance system
CBO	Community Based Organization
CSGD	Curative Services General Directorate
CSO	Civil Society Organization
EU	European Union
FP	Family Planning
GRB	Groups with Risk Behaviour
GFATM	Global Fund for AIDS, Tuberculosis and Malaria
GoT	Government of Turkey
HIV	Human Immune-deficiency Virus
IDU	Injecting Drug User
ILSC	Intermediate Level Survey Coordinator
LITAT	Local ICON Technical Assistance Team
IEC	Information, Education and Communication
MCHFPGD	Mother and Child Health and Family Planning General Directorate
M&E	Monitoring and Evaluation
MoH	Ministry of Health
MSM	Men who have sex with men
NAC	National AIDS Commission
NGO	Non Governmental Organization
NSPWH/FP	National Strategic Plan for Women's Health and Family Planning
ORKSH	Operational Research on Key STIs and HIV
PHC	Primary Health Care
PHCGD	Primary Health Care General Directorate
PHD	Provincial Health Directorate
PLWHA	People living with HIV/AIDS
PMTCT	Prevention of Mother to Child Transmission
PU	Programme Unit
RH	Reproductive Health
RHP	Reproductive Health Programme
SC	Steering Committee
SM	Safe Motherhood
SRH	Sexual and Reproductive Health
SSS	Sentinel Surveillance System
STE	Short-term Expert
STI	Sexually Transmitted Infection
VCT	Voluntary Counselling and Testing
TADOC	Turkish International Academy Against Drugs And Organized Crime
TAT	Technical Assistance Team (of ICON in Cologne)
TDHS	Turkish Demographic and Health Survey
ToT	Training of Trainers
USW	Unregistered Sex Worker
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNFPA	United Nations Population Fund

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1 Project Synopsis

Project Title:	**Operations Research on Key STIs and HIV in Turkey (ORKSH)**
Contract No.:	**DELTUR/ 2006 / 116 - 986**
Country:	**Turkey**
Contracting Authority	**Delegation of the European Commission to Turkey**
Beneficiary	**Ministry of Health (MoH), Turkey**
Overall Objective:	**Contribute to an improved reproductive health situation in Turkey (general purpose of the overall Reproductive Health Programme in Turkey)**
Specific Objective:	**To determine the current epidemiology of key STIs and HIV among the general population and among high risk groups and contribute to the development of a national 2nd generation HIV surveillance system**
Results:	**1. Frequency (not prevalence) and associated demographic and behavioural correlates of key STIs and HIV among pregnant women attending ANC clinics in Ankara, Istanbul, Trabzon, Gaziantep which may serve as a proxy for the prevalence in the general population are determined.** **2. Frequency (not prevalence) and associated demographic and behavioural correlates of key STIs and HIV among sub-groups with high risk behaviour in Ankara, Istanbul and Izmir are determined.** **3. Methodology for a national 2nd generation HIV surveillance system is developed.**
Summary of outputs:	**1. Setting up a project office** **2. Preparing project staff** **3. Orientation meetings for coordinators, experts and persons in charge of MoH structures and at all levels.** **4. Preparing research documents (protocols, questionnaires, forms)** **5. Review of training modules for: counsellors, laboratory experts, peer recruiters** **6. Identification of NGOs, CBOs for collaboration** **7. Identifying peer recruiters to work with groups at risk** **8. Training of NGO staff (peer recruiters) to mobilise target groups** **9. Training of counsellors** **10. Training laboratory staff** **11. Pre-test of questionnaires** **12. Printing and distribution of questionnaires and forms** **13. Ordering & supplying test and laboratory materials** **14. Data (question.) & sample collection of ANC patients** **15. Data (question.) & sample collection of GRB** **16. Laboratory testing of collected samples** **17. Supervision of field activities** **18. Quality control** **19. Transport of data sheets to the Hacettepe data entry staff** **20. Data entry & analysis** **21. Final Conclusion Meeting with all participants** **22. Preparation of the final report** **23. Dissemination of the results**
Project Starting Date:	**01.04.2006**
Project Duration:	**13 Months (including a one month no cost extension)**

2 Executive Summary

As a part of the **Reproductive Health Programme (RHP)** funded by the European Commission and started in January 2003 for a period of four years, a component on **Operations Research on Key STIs and HIV in Turkey (ORKSH)** was foreseen.

The main purpose of the technical assistance component is: **To contribute to the epidemiological knowledge of key STIs and HIV among the general population and among groups with high risk behaviour and assist the development of a national 2nd generation HIV surveillance system.**

The project enables the MoH to prepare specific interventions concerning sentinel surveillance in the field of STIs and HIV in Turkey. Through the direct support to the Ministry of Health (MoH), the programme strengthened the institutional capacity of some structures in the health sector at different levels and improved the quality of work. In working with some civil society organisations (CSOs) in Turkey, collaboration was initiated and basic information was collected for further cooperation between civil society organisations and the MoH.

The project was able to carry out the expected activities and the envisaged outputs were achieved as foreseen.

3 Introduction

3.1 Rationale of the study

This study is the first trial to implement second generation sentinel surveillance in Turkey. The combination of biological data and social behavioural data in surveillance was not used in the country until the present time.

Case reporting, based on different medical activities, remains the main source of surveillance data in Turkey. This means, surveillance data presented are basically data from passive collection even if some sentinel groups are addressed. Data other than collected by case reporting are sporadic. Reporting of communicable diseases is required by the MoH regulations in conformity with the WHO structure.

Despite these various data sources reliable, representative and systematic surveillance data on HIV/AIDS and other STIs are not available, neither from the general population nor from groups with risk behaviour. There is concern that official figures could be far from being the reflection of the real situation.

Until now, there has not been any developed structured model to have systematic active data collection of clearly specified diseases among selected sentinel groups beside a few not clearly organised activities with ANC women, patients in surgery, premarital examinations, returning residents, military personnel,, blood, sperm or

organ donors, unregistered and registered commercial sex workers. There are sporadic studies done in which participants were actively approached to collect data, but this was usually only in context with specific research projects. Nevertheless, premarital HIV testing is obligatory in some provinces of the country at the present moment.

Internationally recommended guidelines in context with HIV testing are usually not followed, because for most patients tests are compulsory without consent and often without appropriate counselling

In the National Strategic Plan of Action on HIV/AIDS (Draft March 2007) it is mentioned that "Establishment of mechanisms to strengthen the national HIV/AIDS surveillance system and operation of the surveillance system in accordance with the national strategies are to be developed, including the initiation and expansion of second generation HIV/AIDS surveillance".

3.2 Objectives of the project

The current project is an opportunity to contribute to the improvement of surveillance of STIs including HIV in the country. By preparing tools for future sentinel second generation surveillance and collecting experiences in the application of the tools, the MoH will be in a better position for the planning and implementation of future sentinel surveillance efforts in the country.

The information collected through representative sentinel surveillance will allow the MoH to improve its planning, and to concentrate on specific needed essential interventions as they are identified through the surveillance.

The implementation of the study with the participation of the health sector staff at different levels will prepare key staff for future interventions and develop an appropriate structure. Through the inclusion of the private health facility (Istanbul Greek Private Hospital) in the study, the chance for a good collaboration with the private sector was also experienced.

The overall objective of the project was stated as to determine the current epidemiology of key STIs (including HIV infection) in selected populations in urban sites in Turkey in order to initiate the development of national 2nd Generation HIV Surveillance.

The specific objectives of the project were stated as:

a. To estimate the prevalence and associated demographic and behavioural correlates of key STIs (syphilis, gonorrhoea, chlamydia, Hepatitis B) and HIV among pregnant women attending antenatal clinics (ANC) in Ankara, Istanbul, Trabzon and Gaziantep as a proxy for the general population;

b. To estimate the prevalence and associated demographic and behavioural correlates of key STIs (syphilis, gonorrhoea, chlamydia, Hepatitis B) and HIV in sub-groups with risk behaviour in Ankara, Istanbul and Izmir (USWs, MSM, IDUs);
c. To provide the methodology for developing future 2nd Generation Surveillance programmes within the above groups in Turkey.

3.3 Organisation and management structure

The technical assistance project "Operational Research on Key STIs and HIV (ORKSH)" in Turkey was implemented by a Consortium. The members are ICON-INSTITUT Public Sector GmbH (Germany) as the contractual partner to the EU, Institute of Public Health, Hacettepe University (Turkey) and the Royal Tropical Institute in Antwerp (Belgium).

The direct beneficiary of the project was the Ministry of Health, Turkey, including structures at the Provincial Health Directorate and Health Facility levels. Through the improvement of the health infrastructure, the general population will also finally benefit.

Contracting authority was the Delegation of the European Commission to Turkey.

The key staffs for the implementation of the project were composed of members of the Local ICON Technical Assistance Team (LITAT) as Team Leader with the two Key Experts responsible from ANC and GRB and the Project Assistant; a backstopping team from ICON Headquarters in Germany; the Hacettepe group composed of STE members as coordinator, expertise in OBGYN, microbiology, infectious diseases, counselling, epidemiology and demography. The Institute of Tropical Medicine, Antwerp supported the research through experts on STD/HIV Research and STI Laboratory.

The project steering committee supervised all project related efforts and the general progress of the projects implementation. The Committee supported the project in all aspects. The decisions on the progress of the project including all adaptations of the project objectives and expected results were taken by the Steering Committee. The project reported to the Steering Committee about all major developments of the project on a regular basis.

Two target groups (USWs and IDUs) of the research live in Turkey under illegal conditions. Therefore, it was essential to collaborate with the authorities in charge with law and order. A representative of the police was a member in the Steering Committee enabling an effective coordination with central and local police departments throughout the survey.

The list of central and field staffs per sites and functions is given in the Annex 1.

4 The Study Design and Implementation

Survey design decisions were taken on the basis of convenience for the study with a less strict scientific approach on representative sentinel surveillance. The draft research protocols prepared earlier by the MoH were extensively reviewed by key experts and updated for the study. The proposed study design was submitted to and accepted by the ethical committees of the survey public health facilities.

4.1 Selection of sentinel groups

The pregnant women, showing up for their first antenatal care examination, were chosen as representatives for the general population. USWs, MSM and IDUs were selected among the population living in high risk conditions regarding HIV and STI infections.

4.2 Selection of sentinel sites

The hospitals for the ANC part of the survey and the facilities intended to reach populations at higher risk were selected by the MoH. The sites were selected on the basis of certain capacities and commitment to be involved in the study and they were visited and briefed about the study objectives and approach prior to the start of the study. Health facilities involved in this study needed to have the staff and laboratory capacity to test for and manage treatment of HIV and the key STIs. Further criteria for site selection included the easy accessibility by road, the high enough number of pregnant women seeking antenatal care to reach the intended number of 500 women per site, and the availability for repeat surveillance rounds in future years.

4.3 Definition of the sample size

The study was planned for the ANC group in 4 major urban antenatal care clinics which see over 3,500 women per annum for their antenatal care. Given the anticipated low HIV prevalence (below 1%), even in these urban areas, a minimum of 500 women per site was expected to give a sample. It was known that even this number will give no representative information of the prevalence of HIV. The STI prevalence (Syphilis, Chlamydia, Gonorrhoea and Hepatitis B) was expected to be higher.

The HIV and STI prevalence assessment among sub-groups with high-risk behaviour was planned as convenience samples in total of 300 for unregistered commercial sex workers (USWs), of 200 for injecting drug users (IDUs) and of 150 for men who have sex with men (MSM) in three major cities (Istanbul, Izmir and Ankara).

4.4 Selection of the key STIs

Among the key STIs found in Turkey, HIV, Syphilis, Chlamydia, Gonorrhoea and Hepatitis B were selected for the study.

Hepatitis C, initially included in the study, was excluded as it was not considered as an STI according to current literature findings.

4.5 Selection of the laboratory test methods

The third specific objective of the project was “to provide the methodology for developing future 2nd generation surveillance programs among ANC and GRB.

MoH and study partners were well aware of the limited epidemiological value of the expected results of the study, because the selection of sites was rather on the basis of convenience (accessibility) than following recommendations to have a representative sample for the target population of the country. Further, the number of persons planned to be tested for the HIV was too low to have reliable confidence intervals for this infection with the anticipated low prevalence (below 1%).

Therefore, the expectation of the MoH from the study was more on the development of appropriate tools and methodology for further studies. This aspect included the need to rely on existing infrastructure and technologies available there. The diagnostic techniques for the surveillance should be the same test methods which are actually used or can be used in the selected facilities. As a consequence, it was decided to use the testing technologies available at the testing sites, in spite of the limited quality of results especially for Chlamydia and Gonorrhoea (rapid tests).

For this surveillance exercises, it was considered as important to have all facilities in the country and close to the place of sample taking to get them involved in the research. Therefore, it was also decided to have the quality control performed through a “Reference Laboratory” in Turkey, which is following WHO standards and is also participating in international quality control essays.

The surveillance exercise was not considered as a testing approach for the treatment of the patients. As the participants were able to get the test result, and if tested positive in the study they were referred to the curative services of the health sector for further investigations.

4.6 Preparation of the research protocols

Study key experts adapted and finalized the research protocols for the ANC group and for the three groups with high risk conditions (USWs, MSM and IDUs). The basic elements of the protocols were prepared by experts for the MoH before the study started. Key experts shared the updated protocols with all partners and STEs

for comments and contributions and the MoH approved final versions (Annex 3 of the Final Report) constituted the bases of all survey activities.

4.7 Preparation of the questionnaires

As a working model for the questionnaires for all four study groups, the samples from the Guidelines for repeated behavioural surveys “Behavioural Surveillance Surveys” funded by USAID and DIFID were used. They were adapted to the conditions of Turkey and reviewed by the participating partners.

After the translation of the questionnaires into Turkish and their field testing, the recommended changes were integrated. Thereafter, they were once more reviewed by a group of experts and they were printed and used in the research. There are specific sets questions for each survey group. Every group’s questions are structured by topics like background characteristics, marriage and live-in partnerships, sexual history – numbers and types of partners, male condom, STDs, knowledge, opinion and attitudes on HIV/AIDS, exposure to interventions, female condom, STD treatment seeking behaviours, stigma and discrimination and voluntary vs. involuntary sexual relations. IDUs also had specific questions on substance use, needle use and sharing attitudes. The final questionnaires used for all target groups can be found in Annex 5 of the Final Report. However, there were some transsexuals among our peer recruiters.

The efficiency of responding questionnaires depended largely on the educational level of the participant. More guidance was necessary for women with lower level educational status. Through their tailored training the counsellors well managed several situations needing orientation regarding filling the questionnaires.

After the research implementation, the counsellors commented that all questionnaires worked well in general, but were found to be too long by some participants. Some questions were not understood, and some questions were found very intimate among the women in ANC. “I don't know / I don't remember” option was selected quite frequently. It was also suggested by counsellors that the order of a few questions could be reviewed.

4.8 Survey organization with definition of tasks and responsibilities

The survey was organized at central and at field levels as presented on the below chart:

Project Organization

- *Ministry of Health – EU Delegation*
  (PHC GD, Inf. Dis. Dept, STD Unit – MCHFPGD)
- *Project Office, Ankara*
  (ICON Inst., Hacettepe Univ. Pub. Health Dept, Antwerp Univ: long and short term experts)
- *Provincial Health Directorates (Ankara, Istanbul, Izmir, Gaziantep, Trabzon)*
  (Inf. Dis. – STD Unit, MCHFP Unit)
- *ANC Group: Hospitals*
  (Ankara Zekai Tahir Burak Maternity, Istanbul Sisli Etfal H, Gaziantep M, Trabzon M)
- *Risk Group: Hospital, Health Centre, Dispensary and Pub. Health Lab.*
  (*Ank*: AMATEM, VDD; *Ist*: Greek H, VDH, Taksim H; *İzm*: VDD, Ataturk Kultur HC, Ataturk Train. Research H, Karsiyaka PH Lab.)
- *NGO and Peer Recruiters*

➲*Special Reference Treatment Centres*

The tasks and responsibilities of different level staff are summarized on the chart below:

Main Tasks of Project Staffs
Central level

- ***MoH Coordinator***
  Coordination of all units and efficiency in meeting objectives
- ***Project Coordinator***
  Coord. of all activities, effective use of resources, international standards and quality in methods/ implementation
- ***Key experts***
  All technical preparations, development of research tools, responsibility in daily coord, coord. of STEs: facilitation
  Field training and supervision
- ***Other experts*** (Hacettepe coordinators, Data and Lab management)

Main Tasks of Project Staffs
Province-facility level

- ***Provincial Survey Coordinator***
  Coord all prov. units, close supervision, facilitation, data transport
- ***Hospital Clinical Coordinator***
  Coord/ respons. survey activities, orientation, communication, innovative solutions
- ***Counsellor***
  Meeting patient, deciding for eligibility
  Assigning personal survey code, registering to log-book (refusals)
  Recruiting patient w. effective counselling, informing, obtaining informed consent
  Maintaining/ monitoring privacy conditions (questionnaire and all procedures)
  Enter personal code and give questionnaire in envelope, facilitate filling form, respond participant queries, keep envelopes
  Collect/ensure collection samples, enter code and send lab, give patient coded signed sheet
  Orient patient to routine ANC after survey procedures
  Get lab results, give results upon application, second counselling and refer to treatment centre
  Hand in envelopes and lab results forms to Prov. Sur. Coord every weekend
  Primary responsible key staff in managing participant and solution of problems – collaboration w. Hosp. Clin. Coord and lab staffs
- ***Lab Chief***
  Coord/ respons lab activities, orientation, facilitation, communication, close supervision
- ***Lab Technician***
  Conduct lab procures per protocol, record, forward results form, collaboration w. Counsellor
- ***Secretary at Reception***
  Meeting patient and pre-assessing eligibility, orientation in procedures in close collab. w. Counsellor

The MoH is the final beneficiary of the study, and a major objective of the study was to prepare tools and recommendations for the MoH for the future implementation of similar approaches on the basis of the experiences and results of the actual research. The participation of key staffs from the structure of the MoH as the surveillance capacity in the implementation of sentinel surveillance activities of the research and the description of their function was seen as an essential part of the Project. The prepared descriptions of the key personnel's functions in the health infrastructure were field tested and proved successful through the implementation of the proposed study. Albeit, the persons (or unit) in charge of surveillance in the MoH were supposed to participate in the coordination of all activities for surveillance, the Project failed to achieve necessary number of participating central MoH staff to create this capacity. The field staff on the contrary developed satisfactorily as sentinel provincial and facility capacity.

4.9 Laboratory quality control

For the processing of the samples at the test sites, flow charts were developed, describing how and in which steps the samples were to be collected and examined. The flow charts are presented in Annex 11 of the Final Report.

To follow basic standards, a quality control of the laboratory testing was planned. The first level was the control through a local reference laboratory, and the second step was an external control of the different levels of laboratories participating in the research.

After the visit of the external quality control expert from the Institute of Tropical Medicine, Antwerp, the protocol for the control was modified in the form that all positive, all borderline sera and randomly selected 5% of negatives were retested for HIV, Hepatitis B and Syphilis at the Hacettepe University Central Laboratory. RPR positive and HIV positive sera were tested by confirmation tests, TPHA for Syphilis and Western Blotting for HIV. The sera were carried by the lab staff to Ankara maintaining the cold chain.

HIV positive sera were confirmed by Western blotting at Refik Saydam Hygiene Centre.

In the external assessment of the laboratory function, a laboratory expert visited the laboratories participating in the operational research project. He visited one laboratory of each level and concentrated on the major points as the equipment, the training standards and the recommended test methods.

After the assessment, he concluded that the standards on the major points meet the international criteria. He prepared recommendations for the improvement of the standards concerning the capacity of the laboratories and the tests used during the study.

Improvements can be made with regard to bio-safety, at a low cost and high acceptability and feasibility. In terms of quality management, the laboratories should profit from a dedicated laboratory quality manager (short term) and consider targeting the ISO15189 norm (medium and long term).

The results of the *Chlamydia trachomatis* and *Neisseria Gonorrhoeae* rapid tests are not reliable (poor test characteristics, inappropriate specimen and low prevalence in target groups). RPR tests are to be confirmed in view of the possibilities of biologically false positives among pregnant women and injecting drug users. Quality control (retesting in reference laboratory) on HBsAg and RPR should include all positive samples (random selection risks to include only negative samples) and should be extended to HIV tests.

4.10 Training efforts

4.10.1 *Training manuals*

Training manuals were prepared for “Peer Recruiters”, “Counsellors” and “Laboratory Staff”. All manuals can be found in Annex 4 of the Final Report.

4.10.2 *Training sessions on the spot*

After a letter of the MoH explaining the research to the administration of the PHD and the administration of the participating health facilities, the field visits by key experts were used to explain again all aspects of the research.

During their first visits at the PHDs and health facility administrations, the key experts 2 and 3 trained all partners collaborating “on the spot”. The research concept was explained to them, and their expected function following the job descriptions above was discussed with them.

Key Experts used every opportunity to train and orient field staff during supervisory visits. They started training at their first field visits from the beginning with preparatory activities explaining the background and content of the survey to the administratively active field staff in the PHD and in the participating health facilities.

For the trainings the Key Experts used PowerPoint presentations at maternity hospitals and Provincial Health Directorates to give an overview on the survey objectives and activities. Provincial Survey Coordinator was trained throughout the visits by close orientation and coaching. Hospital Clinical Coordinators and managers were individually oriented and trained on survey objectives and their roles.

Key Experts worked individually with PHD, hospital, primary level facility all survey staff (from chief physicians and chief nurses to secretaries at the site) and trained them on all details on survey protocol.

NGO staffs and were also given on the spot training on key issues during Key Experts visits as it was done with the administrative staff in the PHD and health facilities..

During their supervisory visits they followed up the training given to three major groups of staffs in Ankara. Counsellors were worked with closely on all details of the patient survey flow in the hospital environment.

Lab staffs were also trained in their environment by the STE during her supervisory visits. These were supported in general terms by the Key Experts during their periodical site visits.

4.10.3 *Training programs in Ankara*

During training courses in Ankara the counsellors, peer recruiters and the laboratory staff were prepared for their work.

As counsellors 24 health workers from 5 pilot districts were chosen and they participated in a STIs and HIV/AIDS counselling refreshment 3 days training programme on the 4-6th September 2006. The training programme was held by interactive, role-play and visual (power-point) presentation techniques by 9 senior trainers. The attendees were given a hundred page course notes.

As peer recruiters 21 women sex workers, and man who have sex with man (gays, transvestites and transsexuals were chosen to be trained on STIs and HIV/AIDS to convince later their peers to take part in the research project. Attendees underwent a 3 days course on the 13-15th September 2006. The training course was held by interactive, role-play and visual (power-point) presentation techniques by 7 senior trainers. The trainers were briefed on the project content and how to collaborate in full details. The attendees were given a seventy-five page course notes.

For the laboratory technicians a training programme was organised on the 29th September 2006 in Ankara. Two laboratory staffs each (total 2 microbiologists, 8 laboratory technicians) from the five test sites were invited. The programme was scheduled as lectures in the morning and laboratory practice in Hacettepe University Adult Hospital Central Laboratory in the afternoon. The lectures included sessions on the general information about the aim/concept of the project, collection of the laboratory data, HIV/AIDS and other sexually transmitted infections in Turkey, and current diagnostic methods for the laboratory diagnosis of HIV/AIDS, hepatitis B, syphilis, chlamydia and gonorrhoea. In the afternoon, the invited staffs were introduced to all test procedures that would be used in the Project and they had hands on practice. They were given booklets consisting of the slides of the lectures and the laboratory methodology including the collection, preparation and the storage of the urine and blood specimens. Flow charts (Annex 11 of the Final Report) were also provided for quick revisions in their daily routine work. The participants were also informed about the external and internal quality control of the laboratory procedures. All participants got the names of the contact persons in the laboratory supply companies. It was also emphasised that they could reach laboratory STEs at Hacettepe whenever they had problems at any step of their work.

4. 11 Data entering and processing

After the questionnaires were taken their final form, data entry format was formed with data entry operator.

A coder who has previous experience on coding health related questionnaires was trained by the Hacettepe expert on the project and on the format of coding. One

sample of each questionnaire was given to the coder that also included the coding directions of each question. After the training, two questionnaires from each group were coded together with the coder in order to get accustomed to the process.

A similar training was given to the operator.

The filled questionnaires were coded by the trained coder after received by the central team and immediately entered to the computer by the operator.

Coder was continuously in contact with the team about the codes of the answers.

A new code was added to the coding list if necessary with the consent of the team. Each answer for open ended questions was coded with a code number and grouping was done during the analysis.

For data entry, Epi-Info 6.0 package program was used. After the data entry finished, all data files were converted to the SPSS and for the analysis SPSS 14.0 package was used.

The marginal and cross checks were done and the errors sourced from miss-coding were corrected.

After cleaning all the files, the marginal and contingency tables were obtained.
The data entry and editing processes were completed within four months.

5 Experiences on Access to Target Groups

All target groups for the surveillance were given, and the health facilities where to work with the target groups were selected by the MoH. To get access to the participants in the ANC setting was therefore not too difficult.

As the options to contact the groups with risk behaviour were not clearly defined, it was much more difficult to get access to those groups.

5.1 Target groups with risk behaviour (MSM, IDUs, and USWs) and their CSOs

According to UNAIDS and WHO classification of HIV epidemics, a numerical index that has been adopted for low-level epidemics is that HIV prevalence has not consistently exceeded 5% in any defined sub-population. Second generation HIV surveillance is recommended for low-level epidemic countries such as Turkey. Some population groups with high risk behaviour regarding HIV were determined by the MoH of Turkey, as the sentinel surveillance groups in the ORKSH. The vulnerable groups included were unregistered female commercial sex workers

(USWs), men who have sex with men (including transvestites) (MSM) and injecting drug users (IDUs).

5.1.1 *Unregistered (Illegal) Commercial Sex Workers (USWs)*

In this study, USWs comprised a difficult group regarding accessibility and participation in the study with the basic reason that they have not been organized in any CSO sufficiently. The transvestites in the MSM group taking part in the activities of their CSOs, namely KAOS-GL, Women's Portal, Human Life Association, Pink Life Association were the method of approaching the members of this group through CSOs.

5.1.2 *Men Who Have Sex with Men (MSM)*

In our study, the only means of approaching this group was through CSOs, namely KAOS-GL, their civil organisation, Human Resource Development Foundation and Women's Portal. Peer recruiters from these associations provided most of the MSM participating in the study. The MSM group in our study included gays, transvestites but not the transsexuals who had undergone surgery. However, there were some transsexuals among our peer recruiters.

5.1.3 *Drug users and Injecting Drug Users (IDUs)*

In this study, the IDU group was the group hardest to access. In one of the provinces, no members of the group applied to the treatment centre (newly established AMATEM) except one case during the data collection phase of the study. The only means of approaching this group with risk behaviour was originally considered to be through the treatment centres of the MoH (AMATEMs). However, some MSM peer recruiters and a private foundation hospital oriented to the treatment of substance users in Istanbul was found to be functioning equally productive as a test site.

The experience by working with the private Greek Foundation Hospital in Istanbul deserves special mention regarding the IDU part of the study. Not only did the hospital collaborate in the study, but this institution contributed the largest number of IDUs for data collection. Even though this foundation hospital was the only private health care setting taking part in the study, the staff and the study counsellors worked parallel to the public personnel.

5.1.4 *CSOs*

Most of the CSOs dealing with STIs and HIV have not been actually created by the groups with risk behaviour (GRB) themselves but rather associations established by academic people to educate and assist them. Some groups in the process of developing new associations of special groups have been identified during our visits

to health centres and CSOs. Thus, the development of CSOs of GRB seems to be a dynamic process and should be monitored closely for reliable information.

The civil society organizations (CSOs) of groups with high risk behaviour (GRB) identified and collaborated with were as follows:
- Hacettepe University Treatment and Research Centre for AIDS (HATAM)
-Ankara Treatment and Training Centre for Alcohol and Substance Abusers (AMATEM)
- KAOS GL
- Human Life Association
- Human Resource Development Foundation (İKGV)
- Positive Life Association
- Women's Portal Affiliated to IKGV
- Izmir AMATEM.

5.2 Access to respondents at ANC facilities

The target population was the first-time antenatal clinic attendee women at 15-49 years of age at any pregnancy. The participants were selected in four sites of four provinces, namely, Ankara, Istanbul, Gaziantep and Trabzon.

6 Monitoring / Evaluation & Supervision

The major advisory and monitoring & evaluation body was the Steering Committee. The regular monthly meetings with the participation of all needed experts, the representatives of the beneficiary (MoH) and the financing organisation (EU) were other key elements of Monitoring and Evaluation.

All participants of the research project were regularly visited during the field work. All sites were visited 6 times by the Key experts 2 and 3. Problems were solved in collaboration on the spot, or support was provided from the central level.

Experts from the Hacettepe group including experts for laboratory, epidemiology, public health and MCH as well as the team leader and representatives of the MoH and of the EU also took part in the field supervision activities.

To confront emergencies and to monitor certain activities, phone and internet communications with every field staff was practised throughout the survey. The participants of the study considered one visit per month as sufficient and appropriate.

During the final conclusion meeting, it was expressed that supervision was seen as an important and a serious critical contribution to the conduct of the project.

7 Results of the study

7.1 Overview of results

As representative for the general population, it was intended to recruit 2000 women participating in ante-natal care examinations during their first visit. As representative for people with high risk behaviour, the intended numbers to recruit were: USWs 300, MSM 150 and IDUs 200.

During the research, it was possible to recruit and collect the following numbers of samples from members of the sub-populations:

Distribution of unregistered sex workers (USW), men who have sex with men (MSM) injecting drug users (IDU) participating in the research by provinces (Ankara, Istanbul, Izmir; November 2006- February 2007)

	USW		MSM		IDU*	
Province	No	%	No	%	No	%
Ankara	93	36.9	73	44.0	31	52.9
Istanbul	137	54.4	42	25.3	36	45,6
Izmir	22	8.7	51	30.7	1	1.5
Total	252	100.0	166	100.0	68	100.0

(*)70.6 % of IDUs involved in the research got treatment on addictive drugs.

Distribution of pregnant women having participated in the research according to provinces (Ankara, Gaziantep, Istanbul, Trabzon; November 2006- February 2007)

Province and Facility	Number	Percentage
Ankara Maternity Hospital	547	26.6
Istanbul Sisli Etfal Hospital	510	24.7
Trabzon Maternity Hospital	504	24.5
Gaziantep Maternity Hospital	499	24.2
Total	2060	100.0

ANC sites indicate that out of 2089 approached patients only 29 refused to participate in the study. Among the refused patients, 21 did not want to give a blood sample, 7 did not want to participate in the study and one patient's husband blocked the participation.

Illiterate women were not eligible for the study. This problem was biggest in Gaziantep where about 40 percent of ANC first-applicant patients were unable to participate in the study for this reason.

Regarding GRB, the refusal rate to participate in the study was highest in the health care setting recruitment group. In the Venereal Diseases Hospital in Istanbul were

63 refusals and 125 participated in the study. In the Ankara Venereal Diseases Centre, where a similar approach was used, 8 patients refused and 188 participated.

In the Private Greek Private Hospital working only with IDUs the counsellors also approached the patients of their hospital to participate in the study. There they had 34 patients participating and 6 patients refusing to take part.

7.2 Research findings

The representative value of the ORKSH study results for Turkey or the target groups covered in the study is very limited as has been pointed out. Research findings gave some information on some aspects of the current situation related to the STIs including HIV in pregnant women and some GRB.

7.2.1 *ANC Findings*

Pregnant women participating in the research had low educational levels, most of them being unpaid family workers/housewives. All those factors lower their social status which is an important barrier in reaching health information and health care services in general.

Early age of marriage (19 years or under for 40.6% of participants), pregnancies at early age and also in advanced age (35 and over) were relatively high in the pregnant group as generally is in the country, which may cause reproductive health problems.

One of the significant findings in the pregnant group was the unawareness of the preventive measures of the STIs, like condom use and avoiding multiple sexual partners, as well as knowledge of the symptoms of the STIs. Although the percentage of women who have multiple sexual partners in the study group was low (0.1%), this was not the case for the husbands, as one in 10 women indicated that her husband had multiple partners or may have other sexual partners.

In the study group, average of first sexual intercourse was found 20.8 ± 3.8, (Median = 20.0, Min – Max = 13 – 40) and to start with marriage, as it is the traditional/cultural norm for women in Turkey, which might be seen as a protective factor for STIs. However, that is a gender issue and not true for men. Therefore, women are under the risk of STIs when they get married and thereafter.

Among pregnant women, condoms were known less than expected, 13.8% declaring not having heard of male condoms. Similarly, the participants had not heard of the female condom by 75.3%. About one in 3 pregnant women mentioned that they used a male condom at least once (37.4 %). When the use of condom in the last sexual intercourse is analyzed, 81.4 % of pregnant women did not. The major reasons for not using condom were: “thought it unnecessary (20.8 %)”, “the partner did not want to use it (19.9 %)”, “they used another contraceptive (13.4 %)”.

The reason of using male condoms was found to be for contraceptive purposes rather than protection from STIs. Condoms are mainly obtained from pharmacies, followed by the primary health care units.

As it is in the entire country, AIDS was known more than HIV by the study population. Only 28.6% replied as having heard of HIV, whereas 93.2% indicated having heard of AIDS. Of the participants, 85.1% had had no test for HIV as 80.6% stated not receiving any HIV education. Regarding stigma, 31.1% of the women provided positive answers to the question of caring for a relative with HIV at home but 39.8% wanted it to be kept confidential.

When the knowledge and opinions of pregnant women in the research group on HIV/AIDS are examined according to their education levels, the level of knowledge on hearing HIV/AIDS and transmission pathway had a direct relationship with pregnant women's education level, in that, as the education level increases, the correct knowledge level increases as well. This relationship is also statistically significant. That was analyzed by the age groups, the youngest (19 years old and younger) and the oldest (40 years old and older) groups had heard less about HIV and they also know less the effect of condom use for protection from HIV.

Pregnant women know the symptoms of the STIs very little (7.4-29.1%), 8.5% apply to health care facilities in a week and incomplete use of prescribed treatment is common. They seldom had diagnostic tests for STIs.

Regarding laboratory results for HIV and STIs, the following results were obtained: Hepatitis B 2.3%, Syphilis 0.1%, Gonorrhoea 0.5%, Chlamydia 0.9%.

7.2.2 *GRB findings*

Among the three groups under the scope of research, HIV positivity has been found as 0.8% (USWs), 1.2% (MSM) and 1.5% (IDUs). However, these findings do not reflect the representative distribution in the risk groups, as has been pointed out elsewhere in the report.

Among the GRB in the research, 72,2 % of USWs and 79.5 % of MSM were in the age group of 20-34. The age group of under-19 was high in IDUs. The education level of the research group (USWs, MSM, IDUs) was higher than the average in Turkey. It was observed that the number of MSM who have high-school/university education is higher than USW and IDU groups. However, these groups have insufficient information on subjects that they are closely related to such as ways of transmission and prevention of STIs/HIV. It is thought that these groups with risk behaviour have a low level of information on subjects that they are closely related to. Also, not having "school" and "facilities that provide public health services" as the leading sources of information could be another factor for the insufficient knowledge.

There are three groups in the sexual lives of USWs: Partners they are married to (4%), sexual partners (40,5%) and customers. In addition to the low rate of measures taken in sexual lives (such as in their last sexual contact, the percentage of condom use was 63.1%) and the number of their customers, contacts of USWs with 3 different groups in their sexual lives in a short time leads to their role in the spread of STIs.

The MSM group was insertive/receptive by 35.5%. Only 36.7% declared using condoms during their sexual intercourses. A majority of the MSM practiced anal sex, only 8.4% declaring not practising anal sex.

The USWs and MSM members were highly aware of the male condom by 98,0%. On the other hand, only 63.1% of them declared using a condom during their last sexual intercourse.

Although sexual activity of IDUs seems lower than the other research groups, their injecting practices facilitate transmission of STIs. The fact that this risk group shared needles by 42.6% and had no cleaning practices for syringes by 48.5% deserves special mention regarding their role in the transmission of HIV. Besides, the participants in this risk group stated not using condoms during sexual intercourse by 60,3%.

Pharmacies were among the first places preferred for service provision (condom, medicine, injector, etc.). The collaboration of pharmacies could contribute in education of GRB on preventive measures, counselling and health seeking behaviour in the future. The knowledge on HIV and AIDS was similar to the ANC population. The groups were aware of AIDS by well over 90% whereas HIV was known in nearly similar proportions only by MSM (89.2%).

49.2 % of USWs had vaginal discharge. 26.0% of MSM had genital discharge and anal discharge. The most frequent symptom in IDUs is genital discharge (10.3%). At least half of USW, one-third of MSM and one-seventh of IDU had any genital infection symptoms and 46.0% of USW, 75.9% of MWM, 68.7 of IDU attend to health facilities.

	USWs		MSM		IDUs	
	Number	%	Number	%	Number	%
HIV	2	0.8	3	1.8	1	1.5
Hepatitis B	6	2.4	6	3.6	2	2.9
Syphilis	19	7,5	18	10.8	1	1.5
Gonorrhoea	7	2.8	5	3.0	1	1.5
Chlamydia	3	1.2	4	1.8	2	2.9

When the test results are analyzed, it was found that syphilis is more common in MSM than USWs. On the other hand, HIV and Hepatitis B transmitted through blood were found in IDUs but no syphilis.

8 Recommendations to the MoH

To enable the MoH to start with surveillance activities, the following recommendations were drawn on the basis of the operational research.

8.1 General aspects

8.1.1 *Testing recommendations for HIV*

All testing for HIV should be in accordance with human rights guarantees of genuine informed consent and confidentiality.

The development of the legislation regarding public health is promised in the new draft “Framework for the National HIV/AIDS Program” (March 2007).In the draft “framework” it is promised that pre- and post-test counselling services should be extended to the health institutions and laboratories that provide testing services,

To collect data on sera-prevalence for HIV, an anonymous approach can also be used. In this form of sera-surveillance a part of a blood sample taken for other reasons is anonymously tested for HIV-Surveillance only for similar diseases at once

Based on the experiences of the research and on the recommendations of WHO in the field of surveillance, and also considering the recommendations of the external evaluator of the laboratory aspects, the MoH is recommended, to concentrate in surveillance only on specific diseases, or on a group of diseases not too different from each other. The surveillance of HIV and STIs in one study is not recommended because the social and medical conditions for most STIs and HIV are different. .

8.1.2 *Second Generation HIV Surveillance*

Turkey is still considered as a low prevalence country and therefore there is no need yet for Second Generation Surveillance on HIV in the general population.

This form of surveillance in Turkey can be considered for groups with high risk behaviour, to have an early indicator about the dimension of the risk factors for HIV transmission.

8.1.3 *Groups with Risk Behaviour (GRB)*

Therefore, an Expert Group should analyse the situation in Turkey and identify all groups at high risk for HIV infection. The experts should estimate the number of members in each risk group as well as their distribution in the country and the way to access them.

8.2 Introduction of quality control for passive surveillance

Since 2005, a newly developed system to collect data on specific diseases and their reporting under well defined conditions is introduced in the health system of Turkey.

Unfortunately, there is no information available on the quality control at different levels of this system. Quality control should include the information about the quality at all stages until the data entry and processing.

Additional to the passive reporting of the data from the health facilities and practitioners, there are actually also data available on certain sentinel groups like blood donors, premarital couples, women in ANC settings, routine pre-surgical tests, returning Turkish citizens working abroad, military recruits, examination of USWs being arrested by the police and routine examinations of registered CSWs.

About the collection and analysis of those data is little information available. This analysis should be done in a unit dealing with surveillance.

8.3 Preparation of conditions for active sentinel surveillance

If sentinel surveillance should be introduced as a standard approach in the infrastructure of the MoH, two major components of infrastructure development and process development have to be prepared.

As surveillance is a part of “Public Health Function” an operational structure is proposed to implement its activities.

8.3.1 *Central level*

At the centre of the surveillance, the MoH needs a structure to deal with all aspects of surveillance. This structure needs access to the units dealing with the different diseases and access to the planning department and to other Ministries (Agriculture, Education, others).

To prepare a proposal for a surveillance infrastructure, a Management committee is recommended. In this committee, the following competences are essential:

- Knowledge of the existing health infrastructure at all levels including available staff
- Knowledge in management of the health sector
- Knowledge in Epidemiology

- Knowledge in Demography

The function of a second Advisory Scientific Committee would be the assistance in the identification of the need for surveillance. It also would have to assist in the preparation of the protocols for the surveillance.

To implement this task the following competences are needed in the Committee:

- Public health
- Legal aspects of health
- Clinical experiences of different specialities
- Laboratory experiences of different levels
- Epidemiological knowledge
- Demography knowledge

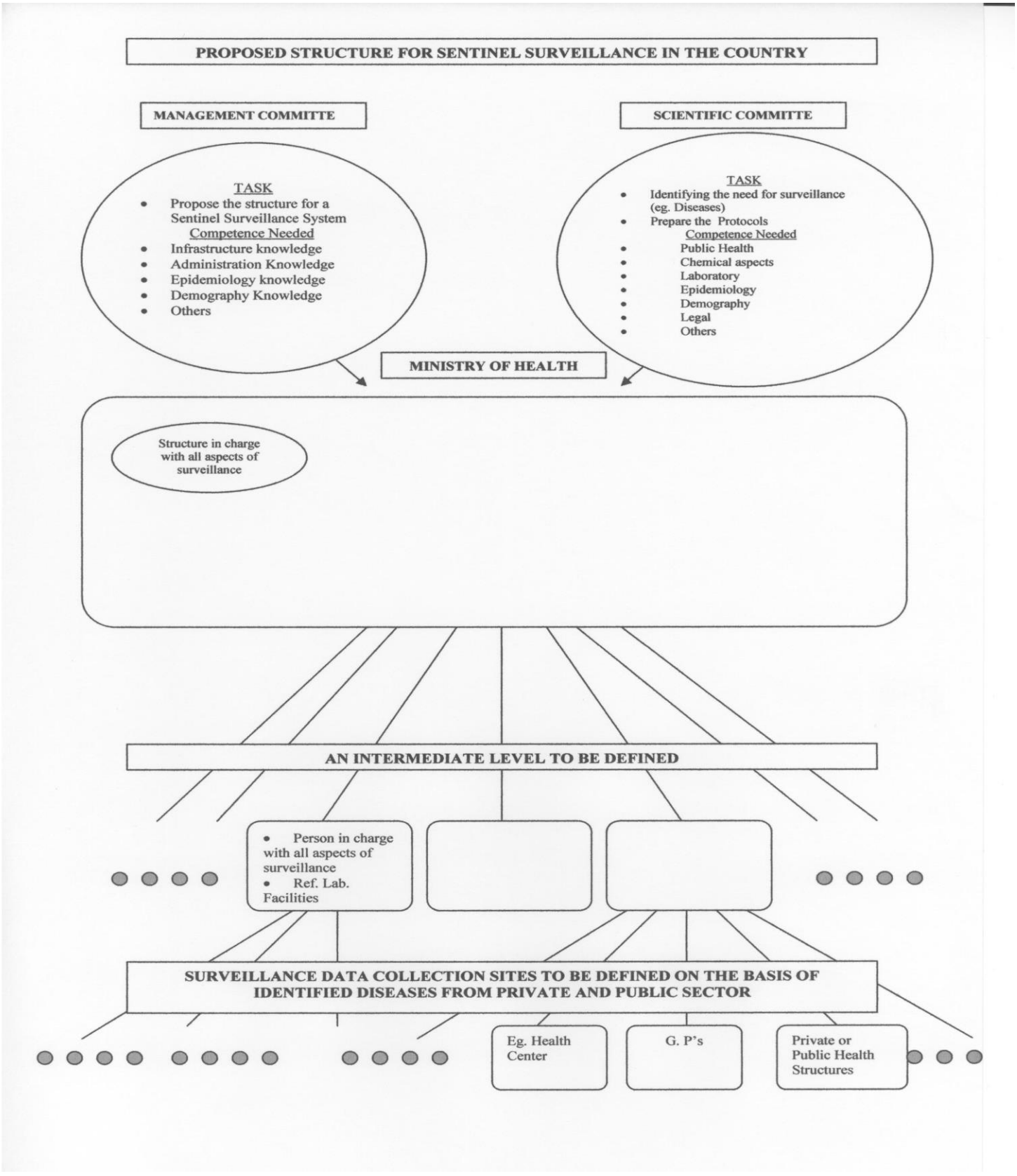
8.3.2 *Intermediate level*

At this level, a person should be in charge of all aspects of surveillance.

8.3.3 *Data collection (test) site*

Under the responsibility of the Intermediate Level, the peripheral surveillance (test) sites have to be identified.

The test sites should be selected from the public and the private sector on the basis of the selected disease for surveillance. They can be any medical facility of the private or public sector (cabinets of GPs, primary health centres, venereal diseases dispensaries, specific departments of hospitals) dealing with the issue to be investigated.


PROPOSED STRUCTURE FOR SENTINEL SURVEILLANCE IN THE COUNTRY
MANAGEMENT COMMITTE
TASK
Propose the structure for a Sentinel Surveillance System
Competence Needed
Infrastructure knowledge
Administration Knowledge
Epidemiology knowledge
Demography Knowledge
Others
SCIENTIFIC COMMITTE
TASK
Identifying the need for surveillance (eg. Diseases)
Prepare the Protocols
Competence Needed
Public Health
Chemical aspects
Laboratory
Epidemiology
Demography
Legal
Others
MINISTRY OF HEALTH
Structure in charge with all aspects of surveillance
AN INTERMEDIATE LEVEL TO BE DEFINED
Person in charge with all aspects of surveillance
Ref. Lab. Facilities
SURVEILLANCE DATA COLLECTION SITES TO BE DEFINED ON THE BASIS OF IDENTIFIED DISEASES FROM PRIVATE AND PUBLIC SECTOR
Eg. Health Center
G. P's
Private or Public Health Structures

8.4 Initiation and process of sentinel surveillance

This process of surveillance will essentially be supported by the Scientific Advisory Committee.

The first decision to start the surveillance process is the selection of the disease(s) or condition to be investigated. After this selection, the scientific committee will have to prepare the protocol for the implementation of the surveillance. The prepared existing research protocols of the presented research project can be used as a model. It is also important to prepare also a budget for the cost of surveillance.

The next step will be the information of the staff in the prepared surveillance infrastructure and the training of the staff at all levels.

8.5 Developing protocols for active sentinel surveillance

The specifically developed protocol for each surveillance intervention is the most essential guideline for the whole surveillance process. It should be developed by field experienced experts, to consider all practical aspects during implementation.

8.6 Recommendations for laboratory quality control

In all studies initiated by MoH considering laboratory testing, quality control needs to be a part of the implementation. Based on the experiences of the research project and the external quality control mission report, recommendations for future testing in the surveillance sector are as follows:

- Consider integration of quality assurance (QA) as a clearly identifiable topic of each project.
- Consider inter-laboratory comparisons on test specimens, prepared and sent by the reference laboratory as part of the quality assessment.
- Restrict decentralized tests to those that are already implemented (or will be introduced) in routine medical care.
- Reconsider the need and priority of screening asymptomatic women in antenatal care for C. Trachomatis and N. Gonorrhoea.
- Consider standardization and confirmation of the present RPR test.
- Consider selection of sentinel centres for (microbiological) in-depth surveillance of HIV and STIs with availability of culture and nucleic acid amplification techniques.

8.7 Access to the targeted population

Through the selection of the disease or condition for the surveillance activity, the target population is defined. To find access to this population several options can be used.

The first option is to work through the health infrastructure by using all available health facilities and health professionals in the public but also in the private sector. The second option is to work with Civil Society Organisations (CSOs).

8.7.1 *Working with the public health sector*

In the MoH urgently a central structure should be established and prepared to sustain the capacity to organize and monitor future surveillance activities in coordination with the trained teams at different levels

The early and clear information of all staff participating in a future surveillance activity is very important. During the preparatory phase of the study the Research Protocol and other information material in time should be sent to all parties and test sites.

The expectations of the personnel participating in research providing extra labour without any payment should be met in some way to convince them that their contribution is valued.

The counsellors having worked in the study are well trained and gained practical experience during the implementation of the study. Therefore, it is advisable that this group is considered for future surveillance activities of the MoH.

The study revealed that the implementation and integration of surveillance programs are feasible in the present primary health care system with its local and central bodies. The introduction of the family physician system has created doubts about the future surveillance activities among all the personnel participating in the ORKSH study. It does seem rather difficult to integrate these surveillance activities into a system not yet clearly defined and established.

The job descriptions for participants in the proposed surveillance infrastructure, from the MoH until the test sites, are based on the above given descriptions used in the research protocol. During the research implementation, they were successfully used.

8.7.1.1 Responsibilities in the MoH for surveillance

The person (or unit) in charge of surveillance in the MoH should coordinate all activities needed for surveillance (preparation, implementation, data analysis, information distribution).

8.7.1.2 Responsibilities at the intermediate level for surveillance

At the intermediate level, a person or group will be appointed by MoH to coordinate all activities at the intermediate level in sentinel surveillance.

- *Intermediate Level Survey Coordinator*

- Coordinates all survey activities on behalf of intermediate level.
- Maintains contact and coordination function for all survey issues under the mandate of MoH with the survey sites key staff: public and private survey sites, laboratories, and NGOs.
- Supervises continuously survey activities (infrastructure, staff, data collection, sending of data to the survey data collection unit in MoH).

8.7.1.3 Responsibilities at the health facility for the surveillance

- *Health Facility Coordinator*

- Coordinates all the survey activities at the health facility level in close collaboration with the facility management (chief physician, chief nurse, others).
- Contributes to the identification of survey responsible staff and organization of the infrastructure (physical space, research flow, data collection, links with laboratory and preparation for staff training) in close collaboration with Intermediate Level Survey Coordinator.
- Orients health facility key staff on survey concepts and protocols directly and with Intermediate Level Survey Coordinator.

- *Counsellor*

- Implements instructions on research protocol.
- Confirms that participants meet inclusion criteria and assists in the participation o the patient in the study
- Coordinates periodically with all staff participating in surveillance to solve problems.

- *Laboratory Chief*

- Lab chief is responsible for the survey tests activities conducted at the laboratory of the health facility as indicated in the research protocol.
- Supervises the lab technicians' testing procedures.

- *Laboratory Technician*

- Receives patient samples in coded materials and performs tests according to the protocol, enters codes in lab log-book, results to coded forms and sends them to the counsellor.

8.7.1.4 Time needed for the survey procedures at site

If surveillance is planned, the following recommendations on the time needed for the practical work can be used as a basis for the calculation for the time frame:

Counselling time needed:
ANC: 5-15 min.
USW: 5-10 min.
MSM: 5-10 min. (easier if the participant comes with a peer-recruiter)
IDU: 5-10 min.

Responding questionnaire time needed:
ANC: 20 min. - 1 hr with help
USW: 15- 60 min. (Education- language problem)
MSM: 30 - 45 min.
IDU: 30 min – 1,5 hrs (personality - time difficult)

Sample taking time needed
ANC: 10 min.(blood and urine)
USW: 10 min.
MSM: 10 min.
IDU: 10 - 60 min. (problem with urine)
Centrifugation and filtration of urine on the collection site (not laboratory) 20 min.

Total time per patient
ANC: 35 - 75 min.
USW: 30 - 80 min.
MSM: 45 - 65 min.
IDU: 45 -160 min.
Weekly and monthly required time can be calculated based on this information.

Daily number of patients within routine services:
ANC: 3-10
USW: 2
MSM: 2-5
IDU: 1-2

Laboratory time for testing needed:
- Average 3 hours for ELISA and RPR in two weeks.
- Average 3 hours for urine samples daily (12-15 patients)
- Centrifuge: 5-10 min/ sample
- Filtration: 1-5 min/ sample
- CT: ~ 60 min/ sample
- GC: ~ 55 min/ sample
- SY: ~ 15 min/ sample
- ELISA: ~ 3 hours/ 100 samples
- One blood, one urine sample for 5 parameters is average 2-3 hours
- 3-4 hours for 10 patients

8.7.2 *Working with the private health sector*

The Greek Hospital experience was the only cooperation with a private health institution and it may not be representative for the entire private health sector. The collaboration with the private health sector may demand other special measures for cooperation.

The collaboration with a family doctor system, in which doctors are considered private, funds need to be planned to pay the extra contribution of the doctors.

But the surveillance program of the MoH needs to include the private health sector as well as the public system, if the intension is to cover in a representative way the general population as well as the populations of the GRB.

8.7.3 *Working with the civil society organisations*

In the CSOs peer recruiters are found to find access to GRB. If peer recruiters are chosen by their CSOs, they should be from among the most creative, experienced and reliable members of the groups, preferably still working among his/her peer group in the same status as the others.

This collaboration with the CSOs usually needs a budget and the payments for the peer recruiters deserve special attention of the MoH, since there seems to be no alternative of working with some people practising high risk behaviour for HIV infection. The expressed demands of the CSOs for future collaboration through peer recruiters were collected from 3 collaborating structures, as shown in the following table.

Name of the NGO and place of activity	Monthly cost of 1 Peer Recruiter	Cost per participant presented	Number of participants per day
Women's Gate Istanbul	**1000 YTL**	**20 YTL**	**10**
Pink Life Association Ankara	**1900 YTL (including taxes)**	**35 YTL**	**5**
Human Life Association Ankara	**1500YTL**	**50 YTL**	**2**

The selection of peer recruiters should be on the basis of successful participation in similar activities, and it should be a condition that the peer recruiters are still active in the field, where they want to mobilise their peers.

Project Budget

Pos.	Item	Total Budget in EUR
B.	**Expenses**	
1	Meeting Costs	21300,00
2	Misceleanous	7500,00
3	Reports & Communication	31550,00
4	Site Visits	5300,00
5	Staff Costs	39050,00
6	Survey Costs	404840,00
	Total	**509540,00**

Annex 1: ORKSH Participants

Steering Committee

Ministry of Health
Dr. Mehmet Ali Torunoglu, PHCGD Communicable Diseases Department Chief
Dr. Peyman Altan, PHCGD Venereal Diseases Unit Chief
Dr. Levent Eker, Public Health Specialist at the MCHFPGD
Dr. Inci Yılmaz, CS Deputy GD
Dr. Saime Sahinoz, Public Health Specialist at the CSGD
Cemil Güneş, PHCGD, Legal Advisor

Ministry of Interior General Directorate of Security
Bulent Ozcan, Turkish International Academy Against Drugs and Organized Crime

Istanbul University
Prof. Dr. Nuray Ozgulnar, Istanbul Medical Fac. Public Health Dept.

European Commission
Figen Tunckanat

Ministry of Health

General Directorate of Primary Health Care
Assist. Prof. Dr. Turan Buzgan, General Director
Assist. Prof. Dr. Hasan Irmak, Deputy General Director
Dr. Mehmet Ali Torunoglu, Communicable Diseases Department Chief
Dr. Peyman Altan, Venereal Diseases Unit Chief
Filiz Aslantekin, Midwife, Venereal Disease Unit

General Directorate of Maternal and Child Care
Dr. Rifat Kose, MCHFP General Director
Dr. Ibrahim Acikalin, MCHFP Deputy General Director
Dr. Levent Eker, Public Health Specialist

General Directorate of Curative Services
Dr. Inci Yılmaz, Deputy General Director
Dr. Saime Sahinoz, Public Health Specialist

Sentinel Units at the Field

Ankara
Provincial Health Directorate
Dr. Ahmet Mecit Tur, Deputy Provincial Health Director, responsible from Inf. Dis.
Dr. Ahmet Ozlu, Infectious Diseases Unit Chief
Dr. Ozlem Ulger, Provincial Survey Coordinator, Public Health Specialist, Inf. Dis. Unit

Ankara Zekai Tahir Burak (ZTB) Maternity Hospital
Dr. Leyla Mollamahmutoglu, Chief Physician, OBGYN

Dr. Perran Moroy, Clinical Survey Coordinator, OBGYN, Chief Resident and Chief of STD Clinic
Huriye Akcora, Survey Counsellor, Nurse
Ozden Sezer, Survey Counsellor, Nurse
Dr. Bact. Mehmet Aydin, Chief of Microbiology Lab.
Gulderen Saylam, Lab. Technician

Ankara AMATEM
Assoc. Prof. Dr. Nesrin Dilbaz, Clinical Survey Coordinator, Clinical Director
Dr. Metin Esen, Family Medicine Specialist
Murside Basoglu, Survey Counsellor, Nurse
Ayse Koybasi, Survey Counsellor, Nurse

Venereal Diseases Dispensary
Dr. Nermin Baydar, Clinical Survey Coordinator, Chief Physician
Dr. Eda Gunes Yilmaz, Survey Counsellor, GP
Dr. Giliman Sevinc Yanar, Survey Counsellor, GP
Dr. Derya Erisen, Survey Counsellor, GP

Istanbul
Provincial Health Directorate
Dr. Mehmet Bakar, Provincial Health Director
Dr. Gonul Sengoz, Deputy Provincial Health Director, responsible from Inf. Dis.
Dr. Tayfun Colakoglu, Provincial Survey Coordinator, GP, Inf. Dis. Unit Director
Dr. Erdogan Celikkol, Provincial Survey Coordinator, GP, Infectious Diseases Unit
Dr. Cemil Uca, Provincial Survey Coordinator, GP, Infectious Diseases Unit

Istanbul Sisli Etfal Hospital
Assoc. Prof. Dr. Ali Ihsan Dokucu, Chief Physician, Hospital Survey Coordinator, Paediatric Surgeon
Dr. Inci Davas, Clinical Survey Coordinator, OBYGN, 2nd Clinic Chief, Out-patient Clin. Coord.
Dr. Nimet Goker, Clinical Survey Coordinator, 1st Clinic Chief, Member of Ethical Committee
Dr. Melahat Donmez Kesim, Clinical Survey Coordinator, 3rd Clinic Chief
Nermin Gelgor, Survey Counsellor, Nurse, ANC responsible
Zuleyha Kara, Survey Counsellor, Med. Secretary
Dr. Banu Bayraktar, Specialist in Microbiology, Lab. Chief
Ayse Bayri Baris, Assistant Medical Microbiology
Seyit Aydin, Lab. Technician
Cevdet Cacan, Lab. Technician

Istanbul Venereal Diseases Hospital
Dr. Nezihe Dirlik Baltali, Clinical Survey Coordinator, Chief Physician
Nuray Suna, Survey Counsellor, Nurse
Nedret Dogan, Survey Counsellor, Nurse

Istanbul Taksim First Aid Hospital
Dr. Gulgun Giritli, Clinical Survey Coordinator, Deputy Chief Physician
Firdevs Erdemir, Survey Counsellor, Nurse
Zeynep Tike, Survey Counsellor, Nurse

Istanbul Greek Private Hospital
Dr. Gurkan Odabasioglu, Clinical Survey Coordinator, Psychiatrist
Evrim Mandaci, Survey Counsellor, Nurse
Vildan Kanioz, Survey Counsellor, Nurse

Izmir
Provincial Health Directorate
Dr. Nese Nohutcu, Provincial Survey Coordinator, Deputy Provincial Health Director
Dr. Ahmet Oral, Provincial Survey Coordinator, Infectious Diseases Unit Chief
Dr. Nese Bardakci, Provincial Survey Coordinator, GP, Infectious Diseases Unit

Izmir Venereal Diseases Dispensary
Dr. Sabahat Asan Adagulu, Clinical Survey Coordinator and Counsellor
Cagla Gokturk Kasikci, Survey Counsellor, Nurse

Izmir Karsiyaka Public Health Lab
Dr. Rahim Ozdemir, Director of Laboratory
Tulay Onay, Lab. Technician
Yonca Algun, Biologist

Ataturk Kultur Health Center
Dr. Habibe Gunes, Survey Counsellor
Nergül Köktürk, Survey Counsellor, Nurse

Izmir Ataturk Training and Research Hospital - AMATEM
Dr. Arzu Kitis, Clinical Survey Coordinator, Psychiatrist

Gaziantep
Provincial Health Directorate
Dr. Yusuf Ziya Yildirim, Provincial Health Director
Dr. Mehmet Cetin, Deputy Provincial Health Director, responsible from Infec. Dis.
Dr. Semih Kazaz, Provincial Survey Coordinator, GP, STD Unit Chief
Dr. Bora Koker, GP, Infectious Diseases Unit Director (coordination supporting staff)

Gaziantep 75th Anniversary Maternity Hospital
Dr. Fethi Pinar, Chief Physician, OBGYN
Dr. Engin Palaz, Clinical Survey Coordinator, OBGYN
Elif Balaban, Survey Counsellor, Nurse, Infections Control Committee
Akcan Yalcin, Survey Counsellor, Midwife, Deputy Chief Nurse
Yilmaz Dizman, Lab Technician
Mehmet Hanifi Kizilyar, Lab Technician

Trabzon
Provincial Health Directorate
Dr. Safak Sunbul, Provincial Health Director
Dr. Sinan Kazaz, Provincial Survey Coordinator, Deputy PHD resp. from Infec. Dis.
Dr. Yavuz Odabasi, GP, Infectious Dis. Unit Chief, (supporting staff)

Trabzon Maternity Hospital
Dr. Ismail Topal, Chief Physician, Paediatrician

Dr. Ilhan Demirel, Clinical Survey Coordinator, OBGYN
Hacer Eyuboğlu, Survey Counsellor, Deputy Chief Nurse
Fatma Yilmaz, Nurse, Survey Counsellor, Infections Control Committee
Dr. Serpil Tuncay Yetiskul, Microbiology Specialist, Chief of Microbiology Lab.
Ilknur Delgen, Lab. Technician

CSO Representatives Responsible for Coordination of Groups with Risk Behaviour

Umut Guner. KAOS GL
Oksan Oztok, Human Life Association
Buse Kilickaya, Pink Life Association
Dr. Muhtar Cokar, Advisor, Human Resource Development Foundation (IKGV)
Dr. Berna Eren, General Director, Human Resource Development Foundation (IKGV)
Filiz Sasaoglu, Women's Portal Manager
Dr. Nazan Kuzgunkaya, EC Member, Positive Life Association

Peer Recruiters Trained and Participated in the Survey

Istanbul
Unregistered sex workers (USW)
Fatma Zerrin Sertkalayci
Men who have sex with men (MSM)
Sahsen Tas (Reha)
Arif Erdogan (Meyra)

Ankara
USW & MSM
Pink Life Association:
Buse Kilickaya
Koray Ahmet Erkaya
Derya Guven
KAOS GL:
Mustafa Gani Yalcin
Umut Guner
Human Life Association:
Oksan Oztok

Izmir
USW & MSM
Yavuz Cingoz

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